

REMARKS

Applicant requests favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Claims 5-8 and 13-15 were pending in the application and were rejected in the Office Action. By way of this amendment, Applicant has: (a) amended claims 5 and 13; and (b) added new claim 16. Accordingly, claims 5-8 and 13-16 are respectfully presented for further consideration.

1. Information Disclosure Statement and Claim for Convention Priority

Applicant respectfully continues to request an indication that the Examiner has considered the reference submitted with the Information Disclosure Statement ("IDS") filed on December 15, 2003. Of course, such an indication may be provided by way of Examiner initials on the form PTO/SB/08 that was submitted along with the IDS.

In addition, Applicant also respectfully continues to request that the next paper issued by the Patent Office include an acknowledgment that the certified copy of the priority document was received; the certified copy of JP 2002-363703 (which was filed in Japan on December 16, 2002) was submitted with the instant application on December 15, 2003.

2. Rejections of Claims 5-8 and 13-15

Under 35 U.S.C. § 103(a), the Examiner rejected: (a) claims 5, 6, and 13-15 as allegedly being obvious when considering U.S. Patent No. 6,112,585 ("Schrottler") in view of U.S. Patent No. 6,705,155 ("Katou"); (b) claims 5, 7, 8 and 13-15 as allegedly being obvious when considering U.S. Patent No. 6,018,993 ("Normann") in view of Katou; and (c) claim 6 as allegedly being obvious when considering Normann in view of Katou and U.S. Patent Application Publication No. 2003/0197603 ("Stewart"). For at least the following reasons, Applicant respectfully traverses each of these rejections.

As amended herein, claim 5 (*i.e.*, the claim from which claims 6-8 depend) recites a tire pressure detecting apparatus for a vehicle. The tire pressure detecting apparatus includes, among other possible things (*italic emphasis added*):

- at least two terminals, each of the terminals comprising:
 - a tire pressure sensor configured to detect a tire pressure; and
 - a transmitter configured to transmit tire pressure data based on the detected tire pressure;
- at least two receivers; and
- a controller,

wherein each of the terminals is attached to a corresponding tire that is positioned in a respective area of the vehicle;

wherein each of the receivers is attached to a part of the vehicle corresponding to an associated tire,

wherein each of the receivers is configured to: (a) receive and demodulate the tire pressure data transmitted by the transmitters; and (b) detect and transmit a reception level of the received and demodulated tire pressure data,

wherein the controller is configured to identify the receiver that has the highest reception level,

wherein the controller is configured to obtain the tire pressure data from the identified receiver, and

wherein the controller is configured to relate the obtained tire pressure data with the tire associated with the identified receiver.

Similarly, as amended herein, claim 13 (*i.e.*, the claim from which claims 14 and 15 depend) also recites a tire pressure detecting apparatus for a vehicle. This tire pressure detecting apparatus includes, among other possible things (*italic emphasis added*):

a plurality of terminals, wherein each of the terminals is positioned proximate a corresponding tire of the vehicle, wherein each of the terminals is configured to detect a tire pressure of the corresponding tire, wherein each of the terminals is configured to transmit a tire pressure signal corresponding to the detected tire pressure, and wherein each of the terminals comprises:

a tire pressure sensor configured to detect the tire pressure; and
a transmitter configured to transmit the tire pressure signal based on the detected tire pressure;

a controller, wherein the controller is configured to identify the pressure in, and the location of, each of the tires; and

a plurality of receivers, wherein each of the receivers is associated with a corresponding terminal,

wherein each of the receivers is configured to: (a) receive and demodulate tire pressure signals transmitted by all of the transmitters; and (b) detect and transmit a reception level of each received and demodulated tire pressure signal.

As hereafter explained in detail, no combination of Schrottler, Katou, Normann, and Stewart teaches or suggests the tire pressure detecting apparatuses recited in claims 5 and 13.

As above-italicized, the embodiments of the invention recited in claims 5 and 13 include receivers that are configured to receive and demodulate tire pressure data (claim 5) or signals (claim 13). Support for this novel aspect of the instant invention is provided by the detectors 9 (which are part of the receivers 41-44) discussed, *e.g.*, on page 4, lines 2-10 of the instant application. By demodulating the tire pressure data at each of the receivers 41-44 (rather than at the central ECU 5), the RF path of the modulated signals transmitted by each of the terminals 31-34 to the nearest receiver 41-44 is short, thereby reducing the likelihood of signal degradation that may be caused by noise associated with longer transmission distances.

In rejecting claims 5-8 and 13-15, the Examiner acknowledges that neither Schrottler nor Normann teaches or suggests receivers that are configured to transmit reception level signals (*see* Office Action at pp. 3, 4), as recited in independent claims 5 and 13. To cure this deficiency, the Examiner turns to Katou. The Examiner's reliance on Katou, however, is misplaced. Specifically, Katou teaches transmitters 1-4 that transmit encoded and modulated signals that are subsequently received by antennas 21, 22. *See* Katou at col. 3, lines 36-38; col. 6, lines 46-47. In turn, the antennas 21, 22 induces a voltage that corresponds to the field strength of the radio signal and sends a signal that represents the induced voltage to a central receiver 5. *See* Katou at col. 6, lines 48-64. A reception circuit 24 in the central receiver 5 decodes and demodulates the signals representing the induced voltage. *See* Katou at col. 7, lines 8-11. As a result, whereas claims 5 and 13 recite receivers that are configured to demodulate tire pressure data/signals, Katou teaches demodulation solely in a central receiver 5. In other words, Katou fails to teach or suggest individual receivers that are configured to receive and demodulate tire pressure data/signals, as recited in claims 5 and 13. Accordingly, Katou can not be used to cure the aforementioned deficiencies of Schrottler and Normann. Moreover, Stewart, which specifically teaches demodulation "only" in a central RF decoder 122 as a means of reducing cost, also can not be used to cure the deficiencies of Schrottler and Normann. *See* Stewart at ¶¶ [0011], [0041] and [0053].

For at least the foregoing reasons, it is clear that no combination of Schrottler, Katou, Normann, and Stewart teaches or suggests the above-italicized limitations of the tire pressure detecting apparatuses recited in claims 5 and 13. Accordingly, Schrottler, Katou, Normann, and Stewart can not be used to reject claims 5 and 13, or any claim dependent thereon, under 35 U.S.C. § 103(a). Moreover, as claims 6-8 depend from claim 5 and as claims 14 and 15 depend from claim 13, each of these dependent claims is also allowable over Schrottler, Katou, Normann, and Stewart, without regard to the other patentable limitations recited therein. Accordingly, a withdrawal of the various rejections of claims 5-8 and 13-15 under 35 U.S.C. § 103(a) is both warranted and earnestly solicited.

3. New Claim 16

Due to its dependence on claim 5, new claim 16 is allowable for at least the same reasons as claim 5, and without regard to the other patentable limitations recited therein.

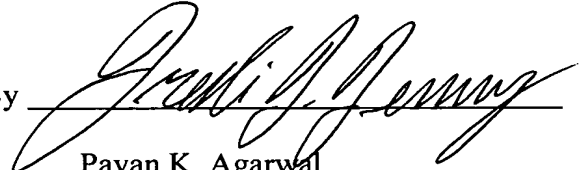
CONCLUSION

For the aforementioned reasons, claims 5-8 and 13-16 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

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By



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